

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Sheryl Silverstein on 05 November 2010.

The application has been amended as follows:

In claim 64, line 23, replace "an" with --the--;

In claim 65, line 23, replace "an" with --the--;

In claim 70, in line 15, replace "to" in the phrase 'Gaussian to the' and insert --curve fit to each putative peak from--;

Amend claim 79 with ~~An automated method for identifying a component in a DNA sample,~~ The method of claim 64, 65, 70, or 71 further comprising:

~~using a mass spectrometer to generate a computer readable data set comprising data representing components in the biological sample for analysis by a computer, and using the computer to:~~

~~denoise the data set to generate denoised data; correct a baseline from the denoised data to generate an intermediate data set; define putative peaks in the intermediate data set, wherein the putative peaks represent components in the DNA sample; generate a residual baseline by removing~~

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~~the putative peaks from the intermediate data set; remove the residual baseline from the intermediate data set to generate a corrected data set; locate a putative peak in the corrected data set; and identify the component that corresponds to the located putative peak;~~

~~wherein the identifying step includes determining a peak probability for the putative peak; and~~

~~multiplying the peak probability by an allelic penalty to obtain a final peak probability;~~

Amend claim 82 with ~~An automated method for identifying a component in a DNA sample,~~ The method of claim 64, 65, 70, or 71 further comprising:

~~using a mass spectrometer to generate a computer readable data set comprising data representing components in the biological sample for analysis by a computer, and using the computer to:~~

~~denoise the data set to generate denoised data; correct a baseline from the denoised data to generate an intermediate data set; define putative peaks in the intermediate data set, wherein the putative peaks represent components in the DNA sample;~~

~~generate a residual baseline by removing the putative peaks from the intermediate data set;~~

~~remove the residual baseline from the intermediate data set to generate a corrected data set;~~

~~locate a putative peak in the corrected data set; and identify the component that corresponds to the located putative peak;~~  
~~wherein the identifying step includes calculating a peak probability that a putative peak in the corrected data is a peak indicating composition of the DNA sample;~~  
~~and wherein calculating a peak probability is calculated for each of a plurality of putative peaks in the corrected data; and comparing a the highest peak probability is compared to a second-highest peak probability to generate a calling ratio.~~

### **Reasons for Allowance**

The following is an examiner's statement of reasons for allowance: The prior art fails to show a method of compression for mass spectrometric data in which the compress data is a real number with a whole number portion determined from the difference between whole number portions of two consecutive points and a decimal portion that represent the difference between a maximum data value and a particular data point. The art also does not show the removal of an area of twice the Gaussian of a putative peak from the left of the putative peak or the removal of 50 Daltons from the right of a putative peak.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARLHEINZ R. SKOWRONEK whose telephone number is (571)272-9047. The examiner can normally be reached on 8:00am-5:00pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KARLHEINZ R SKOWRONEK/  
Primary Examiner, Art Unit 1631

16 November 2010